

**PORT OF PORTLAND
MARINE TERMINAL 1
HOUSE 105 AND 106**

**REGULATED BUILDING MATERIALS SURVEY
(For Reference Only)**



Prepared by

**PBS ENVIRONMENTAL
1220 S.W. Morrison St.
Portland, OR 97205
(503) 248-1939**

**PBS Project Number
8415.27**

March 1997

PRELIMINARY

11.3.31.11
141
for SF

POPT1S700139

Inspection Summary	1-3
Asbestos Survey Plans	2 pages
Appendix A: Asbestos Analysis	5 pages
Appendix B: Total Lead Analysis	2 pages
Appendix C: TCLP Analysis	4 pages

PBS Environmental investigated accessible areas of House 105 and 106 in March 1998 to locate suspect asbestos materials, to test painted surfaces for total and leachable lead, and to address other environmental issues including suspect PCB ballasts, mercury-containing fluorescent tubes, oil stained pavement and pigeon excrement. Greg Baker reassessed conditions and updated the report. A summary of findings is presented below.

ASBESTOS MATERIALS (GREATER THAN 1% ASBESTOS)

<u>MATERIAL</u>	<u>LOCATION</u>
Built-up Roofing	Houses 105 and 106
Sheet Metal Insulation	Houses 105 and 106
Floor Tile	House 106; offices
Tile Mastic on Concrete	House 106; southeast office
Insulating Cement	House 106; equipment on east side
Gaskets	House 106; equipment on east side

MATERIALS THAT TESTED NEGATIVE FOR ASBESTOS

<u>MATERIAL</u>	<u>LOCATION</u>
Paint	Houses 105 AND 106; exterior and interior, including masonry applications
Window Putty	House 105 (less than 1% asbestos)
Window Putty	House 106

ASBESTOS DISCUSSION

The built-up roofing is friable and non-intact. This material will require special handling and disposal in accordance with recent DEQ requirements (3/98). Portions of the roof decking are soft and dangerous. The abatement contractor will have to implement a fall protection program.

Sheet metal insulation consists of painted chrysotile felts applied to both sides of corrugated sheet metal. The asbestos abatement contractor will have to wet the material, remove wood nailers and nails to gain access, disassemble metal sheets as entire structures, label and double wrap in 6 ml polyethylene sheeting for disposal.

The contractor should assume all vinyl tiles to be asbestos and will have to remove all vinyl flooring and wainscot, regardless of the mixed analytical results. Flooring and wainscot mastic may remain in place except in the southeast office where black asbestos mastic is present on the concrete slab.

Small quantities of insulating cement and suspect felt gaskets are present on metal engines and equipment. These suspect materials should be removed by the asbestos

abatement contractor, where accessible. Inaccessible materials should be encapsulated and labeled "Danger: Asbestos". After abatement the Port will physically remove engines and equipment.

Testing results for asbestos are summarized in Appendix A.

LEAD PAINT DISCUSSION

Total Lead

Five (5) lead paint chips were collected by PBS and analyzed for total lead using Flame Atomic Absorption methods. Testing results for total lead are presented in Appendix B.

Interior white paint on wood and metal substrates was flaking heavily and tested relatively low for total lead, approximately 250 parts per million (ppm) or 0.025%.

The flaking red paint on roll down doors tested the highest for total lead: 208,640 ppm or 20.8%. Flaking exterior paint on wood tested 20,396 ppm or 2.01% total lead. Flaking exterior paint on sheet metal tested 10,201 ppm or 1.0% total lead.

These materials will be impacted during asbestos removal work and subsequent demolition of the structures. The condition of these paints is poor and could contribute to worker exposures to lead dust. Contractors must implement a written lead compliance plan as per OR-OSHA OAR 437, Division 3-001 (29 CFR 1926.62).

Leachable Lead and other RCRA Metals

The federal Resource Conservation and Recovery Act prohibits the disposal of eight (8) toxic metals in regular solid waste landfills. This prohibition protects ground water resources from heavy toxic metals. PBS initially collected separate Toxic Characteristic Leachate Procedure (TCLP-EPA 1311) tests of concrete and wooden components, which are likely to be buried and/or landfilled.

The initial TCLP screen of wooden components, which are not likely to be salvaged and recycled, passed for chromium, cadmium, silver, arsenic, selenium, barium and mercury; however it failed above the threshold for leachable lead by 0.4 ppm. PBS then conducted three separate TCLP tests for lead on the main painted wooden components: brown-painted interior wood, white-painted interior wood, and grayish-white painted exterior wood. All three of these individual components TCLP tested significantly below the 5 ppm threshold for leachable lead. All wood debris should be considered non-hazardous and may be landfilled as general construction debris. TCLP testing results are presented in Appendix C.

The initial TCLP screen of painted concrete components tested well below threshold leachable limits for all eight RCRA metals. Leachable lead was not detected on concrete painted surfaces. Low concentrations of leachable chromium and barium were detected. The concrete may be landfilled as solid waste, buried on site or recycled.

TCLP testing was not conducted on metal paints which had relatively high total lead concentrations. It is our understanding at the time of this writing, that lead-painted metal components are exempt from RCRA disposal requirements, as long as they are recycled.

During asbestos abatement and subsequent demolition activities, all contractors must take measures to prohibit lead paint chips and painted debris from entering the Willamette River.

LUBRICANT, OIL AND FUEL-STAINED PAVEMENT

Isolated portions of the interior pavement are stained with suspect lubricants, oils and fuels, presumably from vehicles. Steps must be taken to prevent these substances from entering the Willamette River. All slick, moist-stained surfaces must be cleaned up prior to demolition with detergents, rags and absorbants, and must be sealed in metal drums for waste profiling and disposal by the Port.

PIGEON EXCREMENT

Pigeon excrement is randomly distributed throughout horizontal surfaces of the structures and on the pavement throughout both structures. This material has the potential to become an airborne dust and may cause respiratory ailments in workers exposed to excrement dust, associated molds and bacteria.

Steps must be taken to prevent this material from becoming an airborne dust, and to prevent this material from entering the Willamette River. Excrement on horizontal surfaces should be hosed off by workers wearing full-faced HEPA filtered respirators and full disposable clothing. Hosed surfaces should be sprayed with a 10% Clorox solution to render the material biologically inactive. Excrement should be double bagged or sealed in labeled PVC barrels for disposal. The material may be composted or may be landfilled, providing a solid waste landfill will accept it.

OTHER ENVIRONMENTAL CONCERNS DISCUSSION

Suspect polychlorinated biphenyl (PCB) ballasts, mercury vapor fluorescent tubes and chlorofluorocarbon (CFC) refrigerants were not observed in the portions of Houses 105 and 106 which are scheduled for demolition.

LEGEND

- 7 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES MATERIAL SYMBOL
- ASBESTOS CONTAINING BUILT-UP ROOFING ON MODULAR OFFICE
- ▲ TOTAL LEAD ABOVE LIMIT OF DETECTION.

APPROX. MATERIAL QUANTITIES

QUANTITY	MATERIAL
12,000 SF	SHEET METAL INSULATION
37,000 SF	BUILT-UP ROOFING

SYMBOLS

NOT TESTED	NEGATIVE	POSITIVE	
○	●	●	MECHANICAL INSULATION
□	■	■	SURFACING MATERIAL
◇	◇	◇	MISCELLANEOUS MATERIAL

NOTES

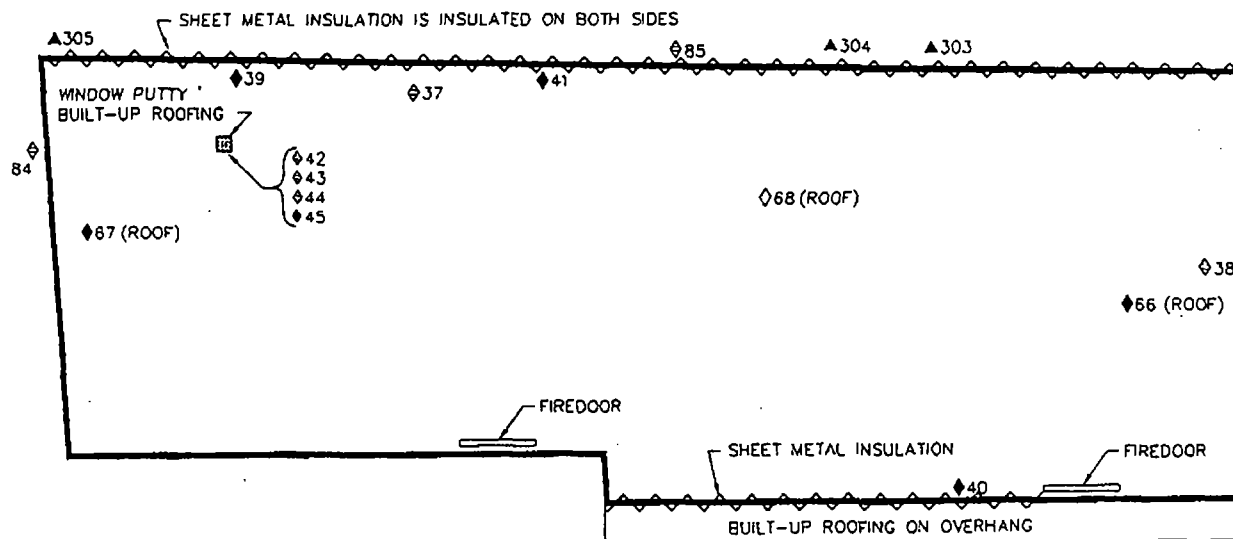
- THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION AND SAMPLE LOCATION.
- ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT ASBESTOS MATERIALS. WHEN OBSERVED THE MATERIALS WERE NOTED ON THE DRAWINGS.
- BUILT-UP ROOFING IS FRIABLE AND NON-INTACT.
- PAINT TESTED IS FLAKING.
- PAINTED WOOD COMPONENTS PASSED TOLP TEST.

INVENTORY OF ASBESTOS SAMPLES

DRAWING REFERENCE	FIELD CODE	LAB RESULT	MATERIAL SAMPLED
◇37	2175.76-37	-	PAINT (2)
◇38	2175.76-38	-	PAINT (2)
◇39	2175.76-39	+	SHEET METAL INSUL./MASTIC
◇40	2175.76-40	+	SHEET METAL INSUL./MASTIC
◇41	2175.76-41	+	SHEET METAL INSUL./MASTIC
◇42	2175.76-42	<1%	WINDOW PUTTY (3)
◇43	2175.76-43	<1%	WINDOW PUTTY (3)
◇44	2175.76-44	-	BUILT-UP ROOFING (7)
◇45	2175.76-45	+	BUILT-UP ROOFING (7)
◇66	2175.76-66	+	BUILT-UP ROOFING (4)
◇67	2175.76-67	+	BUILT-UP ROOFING (4)
◇68	2175.76-68	NT	BUILT-UP ROOFING (4)
◇84	2175.76-84	-	PAINT (8)
◇85	2175.76-85	-	PAINT (8)

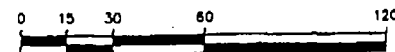
INVENTORY OF TOTAL LEAD SAMPLES

SAMPLE NUMBER	LAB RESULT (ppm)	MATERIAL SAMPLE LOCATION	LAB RESULT
▲303	08415.27-303	RED PAINT, DOOR	208,640 ppm
▲304	08415.27-304	EXTERIOR PAINT ON WOOD	20,396 ppm
▲305	08415.27-305	EXTERIOR PAINT ON SHEET METAL	10,201 ppm



HOUSE 105

SCALE 1" = 60'



1220 SW MORRISON
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97205

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ASBESTOS SURVEY PLAN

PORT OF PORTLAND
TERMINAL NO.1 - HOUSE 105

UPDATED
MARCH 1998

APRIL 1991

08300.09

ASB1

1 OF 2

POPT1S700144

08415.27-303-305 PLAN 4-98
E: 1081000000000 98:39 08/1/97

LEGEND

7 — DRAWING REFERENCE TO BULK SAMPLE FIELD CODE, SEE INVENTORY OF SAMPLES
 MATERIAL SYMBOL

▲ TOTAL LEAD ABOVE LIMIT OF DETECTION.

SYMBOLS

NOT TESTED	NEGATIVE	POSITIVE	
○	●	●	MECHANICAL INSULATION
□	■	■	SURFACING MATERIAL
◇	◇	◇	MISCELLANEOUS MATERIAL

NOTES

1. THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION AND SAMPLE LOCATION.
2. ACCESSIBLE SPACES WERE SURVEYED FOR SUSPECT ASBESTOS MATERIALS. WHEN OBSERVED THE MATERIALS WERE NOTED ON THE DRAWINGS.
3. BUILT-UP ROOFING IS FRIABLE AND NON-INTACT.
4. PAINT TESTED IS FLAKING.
5. PAINTED WOOD COMPONENTS PASSED TCLP TEST.

INVENTORY OF TOTAL LEAD SAMPLES

SAMPLE NUMBER	LAB RESULT (ppm)	MATERIAL SAMPLE LOCATION	LAB RESULT
▲ 301	08415.27-301	INTERIOR PAINT ON SHEET METAL	250 ppm
▲ 302	08415.27-302	INTERIOR PAINT ON WOOD	239 ppm
▲ 304	08415.27-304	EXTERIOR PAINT ON WOOD	28396 ppm

APPROX. MATERIAL QUANTITIES

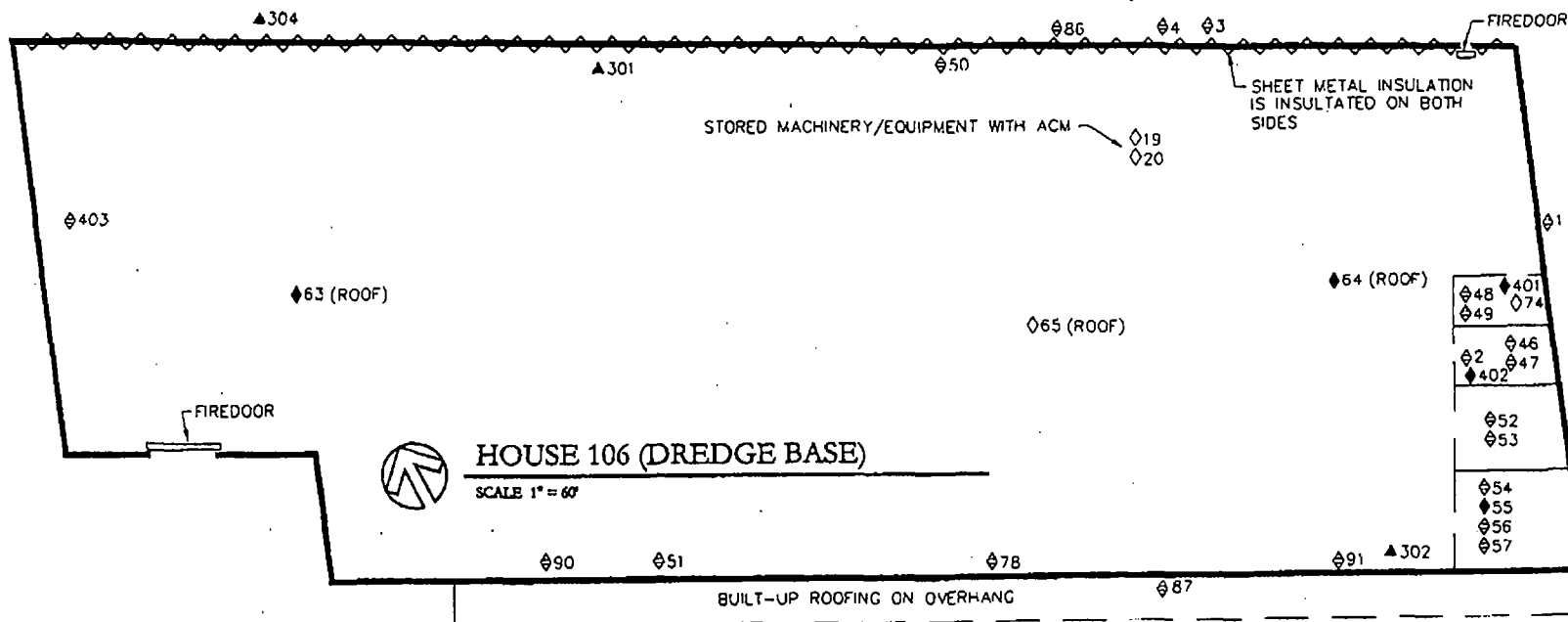
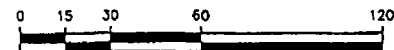
QUANTITY	MATERIAL
1 LF	INSULATING CEMENT
20 LF	GASKET
2,000 SF	SHEET METAL INSULATION
1,400 SF	FLOOR TILE/MASTIC
700 SF	TILE MASTIC ON CONCRETE
91,000 SF	BUILT-UP ROOFING

INVENTORY OF ASBESTOS SAMPLES

DRAWING REFERENCE	FIELD CODE	LAB RESULT	MATERIAL SAMPLED
⊕1	8300.10-1	-	PAINT
⊕2	8300.10-2	-	FLOOR TILE

THE FOLLOWING SAMPLES WERE TAKEN DURING A PREVIOUS PBS SURVEY IN APRIL 1991

⊕19	2175.76-19	NT	INSULATING CEMENT
⊕20	2175.76-20	NT	GASKET
⊕46	2175.76-46	-	FLOOR TILE (2)
⊕47	2175.76-47	-	FLOOR TILE (2)
⊕48	2175.76-48	-	FLOOR TILE (3)
⊕49	2175.76-49	-	FLOOR TILE (3)
⊕50	2175.76-50	-	PAINT (3)
⊕51	2175.76-51	-	PAINT (3)
⊕52	2175.76-52	<1%	FLOOR TILE (4)
⊕53	2175.76-53	-	FLOOR TILE (4)
⊕54	2175.76-54	-	FLOOR TILE (5)
⊕55	2175.76-55	+	FLOOR TILE (5)
⊕56	2175.76-56	-	CELLULOSE SHEET/MASTIC
⊕57	2175.76-57	-	FLOOR TILE/MASTIC
⊕63	2175.76-63	+	BUILT-UP ROOFING (3)
⊕64	2175.76-64	+	BUILT-UP ROOFING (3)
⊕65	2175.76-65	NT	BUILT-UP ROOFING (3)
⊕74	2175.76-74	-	MATERIAL DEBRIS
⊕78	2175.76-78	-	PAINT (5)
⊕86	2175.76-86	-	PAINT (9)
⊕87	2175.76-87	<1%	PAINT (9)
⊕90	2175.76-90	-	WINDOW PUTTY (1)
⊕91	2175.76-91	-	WINDOW PUTTY (1)
⊕401	8415.27-401	+	FLOOR TILE
⊕402	8415.27-402	+	FLOOR TILE WAINSCOT
⊕403	8415.27-403	-	MASONRY PAINT



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ASBESTOS SURVEY PLAN
 PORT OF PORTLAND
 TERMINAL NO.1 - HOUSE 106

UPDATED
 MARCH 1998
 APRIL 1991

08300.10

ASB1

2 OF 2

POPT1S700145

6-9-91 10:00:00 100.0 3 55.91 86/75/75

ASBESTOS ANALYSIS

T1 HOUSE 105 AND 106

POPT1S700146

CODE	MATERIAL	ANALYSIS	LOCATION	LAB
2175.76-037	Paint (2)	No Asbestos Detected (Beige paintlike)	East wall interior house 105	PBS Laboratory
2175.76-038	Paint (2)	No Asbestos Detected (Beige paintlike)	South wall interior house 105	PBS Laboratory
2175.76-039	Sheet Metal Ins./Mastic	75% Chrysotile (Tan felt) No Asbestos Detected (Black tar)	East wall north end bldg. 105	PBS Laboratory
2175.76-040	Sheet Metal Ins./Mastic	70% Chrysotile (Tan felt) No Asbestos Detected (Black tar)	East wall cent. and bldg. 105	PBS Laboratory
2175.76-041	Sheet Metal Ins./Mastic	90% Chrysotile (Tan/black) No Asbestos Detected (Mastic)	East wall south end bldg. 105	Oregon Analytical
2175.76-042	Window putty (3)	<1% Chrysotile (Dense light gray)	S. 1/2 of sml mobile inside bld 105	PBS Laboratory
2175.76-043	Window putty (3)	<1% Chrysotile (Dense light gray)	N.1/2 of sml mobile inside bld 105	PBS Laboratory
2175.76-044	Built-up Roofing (7)	No Asbestos Detected (Black tarlike)	NE corner sml mobil inside bldg 105	PBS Laboratory
2175.76-045	Built-up Roofing (7)	8% Chrysotile (Black)	SW corner sml mobil inside bldg 105	Oregon Analytical
2175.76-066	Built-up Roofing (4)	35% Chrysotile (Black tarlike)	House #105 south end of roof	PBS Laboratory
2175.76-067	Built-up Roofing (4)	30% Chrysotile (Black tar)	House #105 north end of roof	Oregon Analytical
2175.76-068	Built-up Roofing (4)	Not Tested (archived)	House #105 center of roof	—
2175.76-085	Paint (8)	No Asbestos Detected (All layers)	Exterior east central house #105	PBS Laboratory

Samples will be disposed of after 11/18/95 unless Owner notifies PBS.

House 105

Page 1

POPT1S700147

CODE	MATERIAL	ANALYSIS	LOCATION	LAB
08415.27-401	Floor Tile	3% Chrysotile (beige tile) No Asbestos Detected (yellow mastic)	House 106; men's restroom; white wainscot 12"	PBS Laboratory
08415.27-402	Floor Tile	4% Chrysotile (tan tile) No Asbestos Detected (yellow mastic)	House 106; office; 12" brown floor tile	PBS Laboratory
08415.27-403	Masonry Paint	No Asbestos Detected	House 105/106 firewall	PBS Laboratory

Samples will be disposed of after 5/08/98 unless Owner notifies PBS.

T1, House 105 & 106

Page 1

POPT1S700148

CODE	MATERIAL	ANALYSIS	LOCATION	LAB
2175.76-063	Built-up Roofing (3)	25% Chrysotile (Black tarlike)	House 106 north end roof	PBS Laboratory
2175.76-064	Built-up Roofing (3)	30% Chrysotile (Black tar)	House 106 south end roof	Oregon Analytical
2175.76-065	Built-up Roofing (3)	Not Tested (archived)	House 106 center roof	---
2175.76-074	Material Debris	Not Tested (archived)	Air cell debris above 106 offices	---
2175.76-078	Paint (5)	No Asbestos Detected (Gray paintlike)	Intr cor wtl paint house 106 W wall	PBS Laboratory
2175.76-086	Paint (9)	No Asbestos Detected (All layers)	Exterior east central house #106	PBS Laboratory
2175.76-087	Paint (9)	<1% Chrysotile (Gry/silver paint)	Exterior west central house #106	PBS Laboratory
2175.76-090	Window putty (1)	No Asbestos Detected (All layers)	Main windows hse 106 W wall N end	PBS Laboratory
2175.76-091	Window putty (1)	No Asbestos Detected (All layers)	Main windows hse 106 W wall S end	Oregon Analytical

Samples will be disposed of after 11/18/95 unless Owner notifies PBS.

House 106

Page 2

POPT1S700149

CODE	MATERIAL	ANALYSIS	LOCATION	LAB
2175.76-019	Insulating Cement	Not Tested (archived)	Equipment stored House 106	-----
2175.76-020	Gasket	Not Tested (archived)	Equipment stored House 106	-----
2175.76-046	Vinyl Floor Tile (2)	No Asbestos Detected (Dense floor tile) No Asbestos Detected (Yellow gluelike)	S. bldg 106 bath wainscot-NW crnr	PBS Laboratory
2175.76-047	Vinyl Floor Tile (2)	No Asbestos Detected (Grayish-white)	S. bldg 106 bath wainscot-SW crnr	Oregon Analytical
2175.76-048	Vinyl Floor Tile (3)	No Asbestos Detected (Brown dense)	S bldg 106 east office (SW corner)	PBS Laboratory
2175.76-049	Vinyl Floor Tile (3)	No Asbestos Detected (Gray-brown)	S bldg 106 east office (NE corner)	Oregon Analytical
2175.76-050	Paint (3)	No Asbestos Detected (Lt. gray friable)	Bldg 106 interior E wall (center)	PBS Laboratory
2175.76-051	Paint (3)	No Asbestos Detected (Lt. gray friable)	Bldg 106 interior N wall (north)	PBS Laboratory
2175.76-052	Vinyl Floor Tile (4)	<1% Chrysotile (Mottled, dense)	S bldg 106 center office (south)	PBS Laboratory
2175.76-053	Vinyl Floor Tile (4)	No Asbestos Detected (Gray-brown)	S bldg 106 center office (north)	Oregon Analytical
2175.76-054	Vinyl Floor Tile (5)	No Asbestos Detected (Black mastic)	S bldg 106 west office (north)	PBS Laboratory
2175.76-055	Vinyl Floor Tile (5)	3% Chrysotile (Dark Brown)	S bldg 106 west office (south)	Oregon Analytical
2175.76-056	Cellulose sheet/Mastic	No Asbestos Detected (Brown fibrous) No Asbestos Detected (Dk brwn gluelike)	S bldg 106 loft office/firtex	PBS Laboratory
2175.76-057	Vinyl Floor Tile/mastic	No Asbestos Detected (Brown mastic)	S bldg 106 loft office/floor tile	PBS Laboratory

Samples will be disposed of after 11/18/95 unless Owner notifies PBS.

CODE	MATERIAL	ANALYSIS	LOCATION	LAB
08300.10-001	Paint	No Asbestos Detected	Exterior; east wall	PBS Laboratory
08300.10-002	Vinyl Floor Tile	No Asbestos Detected	Men's restroom	R.J. Lee Group, Inc.

Samples will be disposed of after 3/03/97 unless Owner notifies PBS.

T1 - House 106

Section Six Page 6.1

POPT1S700151

TOTAL LEAD ANALYSIS

T1 HOUSE 105 AND 106

POPT1S700152

PBS ENVIRONMENTAL
1220 S.W. MORRISON STREET, SUITE 600
PORTLAND, OREGON 97205
(503) 248-1939

Client: Port of Portland
PO Box 3529
Portland, OR 97208-3529

Report Date: 3/08/98
Date Received: 3/04/98
Client Project ID:
PBS Project No.: 08415.27
Page No.: 1 of 1

Project: T1, House 105 & 106

SAMPLE TYPE: PAINT

ANALYSIS: EPA SW846 Method 3050/7420 Flame Atomic Absorption - LEAD

<u>SAMPLE ID</u>	<u>DATE SAMPLED</u>	<u>LOCATION</u>	<u>TOTAL LEAD mg/kg (ppm)</u>	<u>TOTAL LEAD percent (%)</u>	<u>LOD mg/kg</u>
LB08415.27-301	3/04/98	Flaky white paint; interior house 106 on sheet metal	245.9	.025	43.1
LB08415.27-302	3/04/98	Flaky white paint; interior house 106 on wood	239.2	.024	47.8
LB08415.27-303	3/04/98	Flaky red paint on roll down doors; house 105	208,640.3	20.864	38.8
LB08415.27-304	3/04/98	Flaky exterior paint; house 105/106 composite on wood	20,396.3	2.040	42.7
LB08415.27-305	3/04/98	Flaky exterior paint; house 105; on sheet metal	10,201.7	1.020	44.0

Analyst(s): LJ

Reviewed by:

Date:

Rollie A. Champs
3/9/98

mg/kg - Milligrams per kilogram
ppm - Parts per million

LOD - Limit of detection

Environmental Lead Proficiency Analytical Testing (ELPAT) Laboratory ID #11511

POPT1S700153

P B S
ENVIRONMENTAL

TRANSMITTAL AND CHAIN OF CUSTODY
FOR
LEAD SAMPLES

Project No. 08415.27

Individuals signing this form warrant that the information that is applicable to their title is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the Sender. Receiver shall report damage of package immediately to Sender.

SENDER

Date Sent: March 4, 1998
PBS Environmental
ATTN:
1220 S.W. Morrison, Suite 600
Portland, Oregon 97205
(503) 248-1939

Shirley Teska

Name
Shirley Teska 3/4/98
Authorized Signature Date

RECEIVER

DATE RECEIVED: 3/5/98
COMPANY PBS Laboratory
ADDRESS 1220 S.W. Morrison #600
Portland, OR 97205

Condition of Package: *OK*

Rollie Champagne

Name
Rollie A Champagne 3/5/98
Authorized Signature Date

Sender's
ID No.

Brief Description
(May be left blank when sending bulk samples)

Receiver's
ID No.

L08415.27-301
L08415.27-302
L08415.27-303
L08415.27-304
L08415.27-305

980304-0299
980304-0300
980304-0301
980304-0302
980304-0303

Please analyze the enclosed 5 sample(s) for LEAD content using Atomic Absorption Method. PBS requests prior notification if samples will be disposed.

48hr TMA

TCLP ANALYSIS

T1 HOUSE 105 AND 106

POPT1S700155

*WyEast Environmental Sciences, Inc.***LABORATORY REPORT**

PBS Environmental
1220 SW Morrison # 600
Portland OR 97205

PROJECT NAME/SITE: T1-Houses 105/106 REPORT NUMBER: 21488
PROJECT NUMBER: 8415.27 REPORT DATE: 3-10-98
EXTRACTION DATE: 3-5-98 PAGES: 1 of 1

TCLP-8 Toxicity Characteristic Leaching Procedure for 8 metals in soil

Extraction: EPA 1311

Analysis: EPA 7190 Chromium (Cr), 7130 Cadmium (Cd), 7420 Lead (Pb), 7760 Silver (Ag),
7060 Arsenic (As), 7740 Selenium (Se), 7180 Barium (Ba), 7470 Mercury (Hg)

All concentrations listed in mg/L (ppm)

Field ID / Lab ID	Cr	Cd	Pb	Ag	As	Se	Ba	Hg
8415.27-901/39939	ND	0.2	5.4	ND	ND	ND	ND	ND
8415.27-902/39940	0.1	ND	ND	ND	ND	ND	0.6	ND
BLANK	ND	ND	ND	ND	ND	ND	ND	ND
Detection Limit	0.1	0.01	0.1	0.01	0.1	0.1	0.1	0.005

ND = Not Detected (below reporting limit or detection limit)

Report Number: _____

21488

Research & Laboratory Services

Environmental Sciences, Inc.

CHAIN OF CUSTODY

2415 SE 11th Ave. • Portland, Oregon 97214 • (503) 231-9320 • FAX (503) 231-9344

PROJECT #	8415.27--	PROJECT NAME / SITE	T1 - HOUSE# 105/106	STATE	OR	PURCHASE ORDER #	8415.27
COMPANY	PPS ENV. CONSULTANTS	REPORT ATTENTION		PHONE NUMBER	248-1939	FAX NUMBER	
SAMPLES COLLECTED BY	GREG BAKER	DATE(S) COLLECTED	3/4/98	TIME(S) COLLECTED		SAMPLES CHILLED TO 4° C?	NO
PRESERVATIVE USED? (HCl, etc.)						Regular <input type="checkbox"/>	3-5 Days <input type="checkbox"/>
FIELD ID	MEDIA	CONTAINER	VOLUME ETC	ANALYSIS REQUIRED		LAB ID	
8415.27-901	PAINT ON WOOD			8 RCRA METAL TCLP		39939	
-902	PAINT ON CONCRETE			" " " "		39940	
RELINQUISHED BY	GREG BAKER	DATE / TIME	3/4/98 2:30 PM	RECEIVED BY	[Signature]	DATE / TIME	3-4-98 2:30 PM
RELINQUISHED BY		DATE / TIME		RECEIVED BY LAB		DATE / TIME	
REMARKS ON MONDAY 9 AM PLEASE; \$160 RATE PER SAMPLE PLEASE				SHIPPED BY			

WyEast will return white copy to client with laboratory report and keep yellow copy for files. Client keeps pink copy.

POPT1S700157

PBS ENVIRONMENTAL
1220 S.W. MORRISON STREET, SUITE 600
PORTLAND, OREGON 97205
(503) 248-1939

Client: Port of Portland
PO Box 3529
Portland, OR 97208-3529

Report Date: 3/16/98
Date Received: 3/13/98
Client Project ID:
PBS Project No.: 08415.27
Page No.: 1 of 1

Project: T1, House 105 & 106

SAMPLE TYPE: TCLP

ANALYSIS: EPA SW846 Method 1311/7420 - LEAD

<u>SAMPLE ID</u>	<u>DATE SAMPLED</u>	<u>LOCATION</u>	<u>TOTAL LEAD mg/l (ppm)</u>	<u>LOD mg/l (ppm)</u>
LB08415.27-0903	3/13/98	TCLP Lead; brown/wood; interior offices	.93	.1
LB08415.27-0904	3/13/98	TCLP Lead; white/wood; interior near deck	1.62	.1
LB08415.27-0905	3/13/98	TCLP Lead; white/gray/wood; exterior	1.17	.1

Analyst(s): IA

Reviewed by:

Rellie A. Champagne

Date:

3/16/98

mg/l - Milligrams per liter
ppm - Parts per million
LOD - Limit of detection
TCLP - Toxicity Characteristic Leachate Procedure

Environmental Lead Proficiency Analytical Testing (ELPAT) Laboratory ID #11511

POPT1S700158

P B S
ENVIRONMENTAL

TRANSMITTAL AND CHAIN OF CUSTODY
FOR
LEAD SAMPLES

Project No. 08415.27

Individuals signing this form warrant that the information that is applicable to their title is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the Sender. Receiver shall report damage of package immediately to Sender.

SENDER

Date Sent: March 13, 1998

PBS Environmental

ATTN:

1220 S.W. Morrison, Suite 600

Portland, Oregon 97205

(503) 248-1939

Jennifer MacDonald

Name

Jennifer MacDonald 3/13/98

Authorized Signature

Date

RECEIVER

DATE RECEIVED: 3/13/98

COMPANY PBS Laboratory

ADDRESS 1220 S.W. Morrison #600
Portland, OR 97205

Condition of Package: OK

Rollie Change

Name

Rollie A. Change 3/13/98

Authorized Signature

Date

Sender's
ID No.

Brief Description

(May be left blank when sending bulk samples)

Receiver's
ID No.

L08415.27-0903

L08415.27-0904

L08415.27-0905

980313-0432

980313-0433

980313-0434

Please analyze the enclosed 3 sample(s) for LEAD content using Atomic Absorption Method. PBS requests prior notification if samples will be disposed.

TCLP
RUSH